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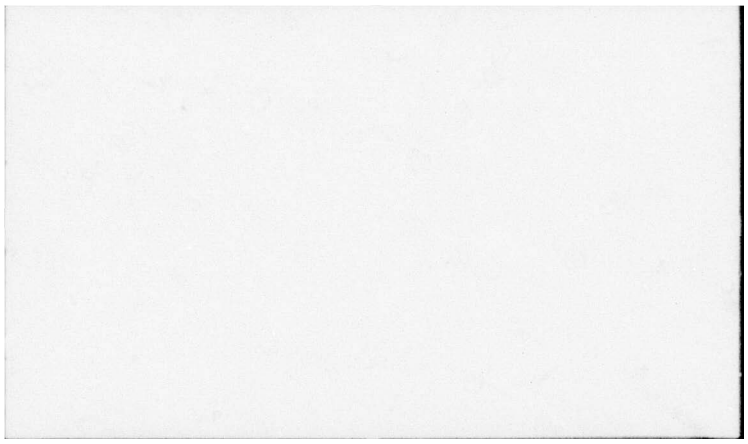
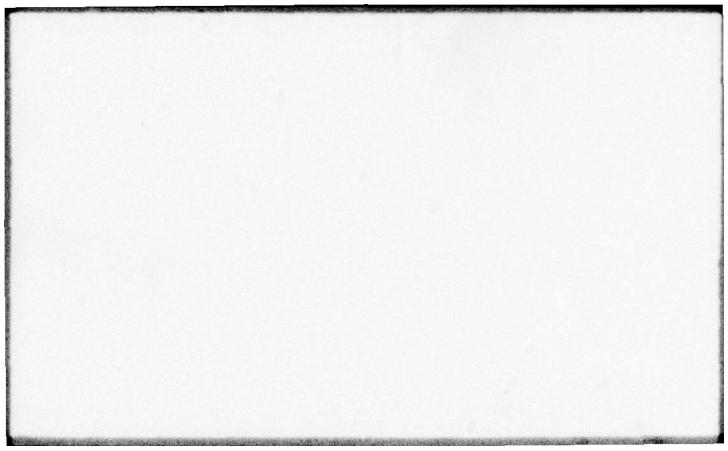




FINAL REPORT

on

CANVASS OF NUCLEAR INDUSTRY FOR SALABILITY OF WELDON SPRING CHEMICAL PLANT

to

DA PROJECT MANAGER

for

CHEMICAL DEMILITARIZATION AND
INSTALLATION RESTORATION
U. S. ARMY

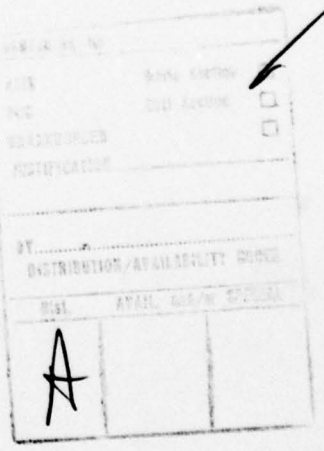
December 30, 1976

by

R. A. Ewing and H. L. Toy

BATTELLE
Columbus Laboratories
505 King Avenue
Columbus, Ohio 43201

TABLE OF CONTENTS



FINAL REPORT

on

CANVASS OF NUCLEAR INDUSTRY FOR SALABILITY OF WELDON SPRING CHEMICAL PLANT

by

R. A. Ewing and H. L. Toy

INTRODUCTION

On September 30, 1976, the U.S. Army, under Basic Agreement DAHC-04-72A-0001, assigned Battelle's Columbus Laboratories the task of conducting an expedited preliminary survey of potential private sector interest in the acquisition of the Weldon Spring Chemical Plant, St. Charles County, Missouri, now in the possession of the U.S. Army.

On October 4, 1976, Messrs. R. A. Ewing and H. L. Toy visited Edgewood Arsenal and reviewed the file on this plant, and discussed the program with Captain R. York and Mr. J. Zarzycki. On the basis of these discussions, and in view of the need for the results at the earliest possible time, it was decided that a canvass would be made by telephone of a selected list of the most likely candidates.

When the AEC suspended operations at Weldon Spring in early 1967, efforts were made to dispose of the plant to the private sector, and a mailing and brochure was sent to over 90 U.S. companies. This list, which included numerous companies not in the nuclear industry, served as the basis for the present canvass. The listing was edited and supplemented based upon industry knowledge.

Scope of the canvass was restricted by the work statement to the nuclear industry. This constraint was based upon AR 405-90 which states that:

> "GSA may arrange to sell contaminated chemical or other industrial plants to a purchaser whose operations will result in the same type of contamination, or who agrees to perform the necessary decontamination."

The most logical area to look for interest, therefore, was the industry which would produce the same type contamination. Based on decontamination experience gained by the Army during the renovation of a portion of the site in 1968, the possibility of finding a non-nuclear firm willing to incur the costs of the decontamination that would be necessary was judged to be nonexistent.

Review of the original AEC list of potential candidates, plus the addition of other organizations in a licensing position or possessing nuclear capability, resulted in the attached listing of 36 companies which was utilized in the telephone canvass.

OBJECTIVES OF THE PROGRAM

The principal objectives of the program, as described in the work statement, included the following:

- Determine the salability of the Weldon Spring Chemical Plant through a canvass of the nuclear industry.
  - (a) Identify potential candidate purchasers in the nuclear industry.
  - (b) Initiate informal contact with identified companies for expression of interest in acquisition of the site.
- Determine and rank appropriate publications for advertising the availability of the site for sale.

APPROACH TO NUCLEAR INDUSTRY PROSPECTS

Prior to initiating the telephone canvass, a general introductory presentation was prepared to serve as an outline in soliciting an expression of interest. The text utilized for the solicitation is presented below. Additional preparation before initiating the telephone canvass included a general background study of each company contacted. This preparation enhanced our position in discussing possible uses of the Weldon Spring facility and how such a facility might fit into the prospective candidate's operations.

> "Battelle's Columbus Laboratories has been engaged by the Army's Project Manager for Chemical Demilitarization and Installation Restoration to canvass the nuclear industry to determine if there is an interest in acquiring the Weldon Spring Chemical Plant located just west of St. Louis. Our mission is to contact members of the industry with known capabilities and the licensing position to determine their degree of interest in acquiring the Weldon Spring site.

"You may be aware of some of the history of the WSCP, since your firm may have been one of those approached by the AEC when they were seeking a purchaser in 1966-67. The chemical plant consists of 13 major buildings plus numerous smaller miscellaneous buildings, on a site of approximately 170 acres just west of St. Louis. In total, it represents about $60 million investment. The plant commenced operation in 1959 and was operated by Mallinckrodt Chemical Works for the AEC until it was shut down in late 1966.

"The plant was withdrawn from the market in 1967, when the U.S. Army took it over for the purpose of manufacturing Herbicide Orange for use in Viet Nam. However, after dismantling the process equipment from three buildings*, the Army, for a number of reasons, abandoned the whole idea, and the plant has remained idle ever since. The Army is now interested in disposing of the entire facility and has engaged Battelle to determine industry interest in it.

"The facility could be used for a variety of nuclear operations. This would include its original purpose of feed materials purification or a fuel fabrication operation would be another possibility. It could be utilized merely for conventional warehousing. It might be attractive as a centrally-located site for a spent fuel storage facility.

"The cost of the plant is open to negotiation. No figure has been set but from our conversations with the Army, it is quite clear that the Army will be flexible on this point.

"That is a rather brief thumbnail description of the WSCP. If you wish additional information, we can send you a more complete description of the plant--or if you have any specific questions, we will try to answer them or get the answers from the Army.

"While it may be premature to inquire if you can see any possibility of the WSCP fitting into your company plans, we would appreciate any indication of your interest in the WSCP."

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* Sampling, digestion and denitration, and extraction buildings.

RESULTS

Compilation of the revised list of candidate organizations was completed on October 8, 1976, and the telephone canvass begun October 16, 1976. The 36 companies selected for the canvass were based on the following criteria:

- Organizations of substantial size in nuclear, chemical, or mining industry
- Are currently or had previously been active in some area of the nuclear industry. The canvass list included companies engaged in
  - Uranium mining and milling
  - Feed materials processing
  - Reactor manufacturing
  - Operator of an ERDA facility.

The calling procedure consisted of the presentation of a brief description of the property and its current status and a solicitation of an expression of interest. The text described under the Approach to Nuclear Industry Prospects was utilized for general lead-in discussions. Where discussion with a decision-maker was not possible, or where an immediate decision was not forthcoming, arrangements were made for the prospect to call back.

The telephone canvass was conducted October 8 through November 3, 1976. The net result of the telephone canvass is categorized as follows:

Some Interest	4
No Interest	32
Total	36

The above categories were arrived at following a lengthy elimination process consisting of numerous telephone calls to and from the prospective candidates. Allied Chemical indicated a possible interest during the initial telephone contact on October 11, 1976. On November 2, 1976, Mr. Cameron of Allied Chemical called to advise that further discussions with the Corporate staff resulted in a decision of no interest. Seven companies from the total 36 canvass listing did not respond to our initial call and follow-on calls.

The four companies indicating some interest were:

(1) E.I. DuPont de Nemours and Company, Inc.
9012 DuPont Bldg.
Wilmington DE 19807
Attn: Mr. Chalres L. Suplee
Tel: 302-774-4068

(2) Union Carbide Corporation
Nuclear Division
P.O. Box Y
Oak Ridge TN 37830
Attn: Mr. K. W. Bahler
Tel: 615-483-8611

(3) Westinghouse, Inc.*
3 Gateway Center
Pittsburgh PA 15222
Attn: Mr. Dan Berg
Tel: 412-255-3846

(4) United Nuclear Corporation
7700 Leesburg Pike
Falls Church VA 22042
Attn: Mr. R. C. Ross
Tel: 703-821-7900

Brochures describing the Weldon Spring Chemical Plant were sent to each of the above companies. In no case can the interest of the four companies be described as overly enthusiastic, but it extended to a request for the brochure. It was difficult to obtain specific information relating to possible uses the four companies would utilize the Weldon Spring facility.

Other pertinent information relating to the four companies indicating some interest would be:

- All four companies possess or have the capability of obtaining the required Nuclear Regulatory Commission (NRC) licenses to take title to the facility. The Code of Federal Regulations (CFR), Title 10, sets forth the regulations and requirements for conducting nuclear energy operations.

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* Westinghouse, by letter dated December 6, 1976, has revised their statement to one of finding no present or planned facility requirements for which it could use the WSCP. (Letter is attached.)

Part 40 of 10CFR sets forth the regulations for conducting activities with Source Material (natural and depleted uranium and thorium). Part 70 of 10CFR sets forth the regulations for operations involving Special Nuclear Materials (U-235, U-233, and plutonium). Part 50 of 10CFR pertains to Nuclear Power Reactors and Spent Fuel Reprocessing Operations.

- All of the four companies could engage in Feed Materials Processing (Source License) activities, such as were conducted by Mallinckrodt at Weldon Spring.

Canvass of ERDA

There is an increasing shortage of space for the storage of spent reactor fuel elements awaiting reprocessing, since there is no currently operating fuel reprocessing plant in the U.S.; and the prospects are dim that this situation will be corrected for several years. The situation appeared to have the potential of reaching such critical levels that it might be necessary for ERDA to step in as a receiver of last resort. Accordingly, while not in the private sector, ERDA was canvassed to explore the possibility of its interest in Weldon Spring as a centrally-located site for a spent fuel storage facility.

Contact was made with Mr. George Plait, Assistant Director, Reactor Products and Inventory Management (also responsible for Waste Management). He is located at ERDA Headquarters, Germantown, Maryland, 301-233-3757. Mr. Plait indicated that ERDA was aware of the problem, and had solved it by advising the reactor operators that the responsibility of finding spent fuel storage space was theirs. Space is apparently being made available by reshuffling fuel elements and closer storage. Mr. Plait indicated that on the average, existing reactors have assured capacity for 8 to 9 years of reactor operation, and some are protected up to the middle 1980's.

In summary, Mr. Plait foresaw no ERDA need, present or potential, for the Weldon Spring site for this purpose. Further, should a need arise, it would be satisfied at an existing operating site, e.g., Savannah River or Hanford.

PUBLICATIONS AND JOURNALS

In view of the current status and the potential uses of the Weldon Spring Chemical Plant site the target population of candidate purchasers is small, and rather specialized. This select group can be effectively reached through no more than five publications.

The audience and characteristics of each of these is briefly summarized as follows:

Nucleonics Week

Publisher: McGraw-Hill Publications Company
1221 Avenue of the Americas
New York NY 10020
212-997-1221

Circulation: Declined to disclose

Nucleonics Week is, as its name implies, a weekly newsletter, which has come, over the past 10 years or so, to occupy the role of the principal source of current news in the nuclear industry. It utilizes a 8-1/2 x 11-inch format and is designed for retention in a notebook. It contains no advertising, relying entirely on its subscription revenues, and accordingly is expensive, $330/year. Circulation is estimated at several thousand; however, the individual copies have a high multiple readership.

Nucleonics Week cannot be used for advertising the Weldon Spring Chemical Plant, but the announcement by the Army of its availability for purchase would probably be considered a newsworthy item, for a one-time-inclusion. Such an announcement would undoubtedly reach the entire candidate population, since this weekly is so widely read throughout the industry.

Nuclear Fuel

Publisher: McGraw-Hill Publications Company
1221 Avenue of the Americas
New York NY 10020
212-997-1221

Circulation: Declined to disclose

Nuclear Fuel is a new bi-monthly published by McGraw-Hill which has just commenced publication. The first issue (Vol. 1, No. 1) is dated November 1, 1976. It too is a newsletter type of publication 8-1/2 x 11-inch, and designed for retention in a notebook. It also accepts no advertising and is also expensive, $290/year. Its scope is narrower than that of Nucleonics Week, and concentrates on the fuel segment of the industry. On the basis of the first issue, it appears to be a little more technically oriented than Nucleonics Week.

Announcement of the availability of the Weldon Spring Chemical Plant might not be considered particularly newsworthy, from a nuclear fuel viewpoint, and securing its introduction into this publication may offer some difficulty. However, presentation in Nucleonics Week will serve almost the same purpose.

Nuclear Industry

Publisher: Atomic Industrial Forum
7101 Wisconsin Avenue
Washington DC 20014
301-654-9260

Circulation: Declined to disclose

Nuclear Industry is a monthly publication sent to members of the AIF, which is a not-for-profit organization representing the nuclear industry. Subscription cost is $60/year, allocated from the total membership cost, which is based on the size and type of the participating organization.

Nuclear Industry also carries no advertising, so an announcement of the availability of the Weldon Spring Chemical Plant site would have to be introduced as a news item, and would be a one-time thing.

The audience of Nuclear Industry probably overlaps to a considerable extent that of Nucleonics Week, although it may be more oriented towards nuclear power plants and electric utilities.

Commerce Business Daily

Publisher: U.S. Government Printing Office
Washington DC 20402
202-783-3238

Circulation: 28,400 paid subscriptions

The Commerce Business Daily (CBD) is "a daily list of U.S. government procurement invitations, contract awards, subcontracting leads, sales of surplus property, and foreign business opportunities". It appears daily, Monday through Friday, and costs $105/year. There is an unknown number of no-cost subscriptions sent to various governmental agencies, in addition to the 28,400 going essentially to the private sector.

It does not specifically address the nuclear community, but should be included in any advertising campaign to sell the Weldon Spring Chemical Plant. GSA is not the only advertiser, and the U.S. Army could advertise on its own behalf.

Wall Street Journal

Publisher: Dow Jones and Company, Inc.
22 Cortland Street
New York NY 10007
212-285-5000

Circulation: 1,400,000 (total national)

The Wall Street Journal (WSJ) is the nation's No. 1 business newspaper. It appears daily, Monday through Friday, in several regional editions, and has an extensive advertising section, in which industrial properties are frequently advertised for sale. In view of its very large circulation, it is reaching a large number of people, but it is also reaching the decision-makers, and it should undoubtedly be included in any advertising campaign. Any advertisements should be placed nationally, rather than in specific regional editions, since the target population is nationally distributed.

GENERAL CONCLUSIONS

The primary purpose as set forth in the work statement was to obtain an expression of interest in the acquisition of the Weldon Spring facility. Four companies* were identified who indicated some interest. Negotiations beyond this point will be complex and could involve many months before final disposition of the property.

Prospects for the sale or transfer of the Weldon Spring Chemical Plant for nuclear operations at this particular time appear to be minimal due to the many "unknowns" in the nuclear industry. The most likely segment of the nuclear industry that would have an interest would be the "back-end" of the fuel cycle. Specifically, a storage center for spent nuclear fuel. At this date, there is no commercial capability for the reprocessing of spent nuclear fuel. As a result, storage facilities at reactor sites and proposed fuel reprocessing sites are nearing present capacity. This area of spent fuel reprocessing is presently "up-in-the-air" as the Nuclear Regulatory Commission is withholding licensing authorization on spent fuel reprocessing facilities and most importantly the decision to proceed with plutonium recycle for present day power reactors is unresolved at this time.

Acquisition of the property could well require the filing of an Environmental Impact Statement regardless of the future type of operations proposed. This will be a judgemental determination on the part of NRC. NRC would be the lead agency in this determination. An EIS could possibly be required due to the inactive status of the plant for the past ten years and/or political and societal implications.

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* Now three.

APPENDIX A

LIST OF COMPANIES CONTACTED

APPENDIX A

LIST OF COMPANIES CONTACTED

(1) ALLIED CHEMICAL CORPORATION
1221 AVENUE OF THE AMERICAS
NEW YORK, NY 10020
ATTN: J. T. CONNOR, CHMN., CHIEF EXEC. OFF.
PETER SCHILLER/MR. CAMERON

CORPORATE HDG.
COLUMBIA RD. & PARK AVENUE
MORRISTOWN, NJ
201-455-2000

(2) THE ANACONDA COMPANY
1271 AVENUE OF THE AMERICAS
NEW YORK, NY 10020
ATTN: JOHN B.M. PLACE, CHMN., PRES., & CHIEF EXEC. OFFICER
212-397-3800

(3) AMAX, INC.
AMAX CENTER
GREENWICH, CT 06830
ATTN: IAN MacGREGOR, CHMN. & CHIEF EXEC. OFF.
PIERRE GOUSSELAND, PRESIDENT
203-622-3000 (IAN MacGREGOR)

(4) ATLANTIC RICHFIELD
515 S. FLOWER STREET
LOS ANGELES, CA 90071
ATTN: R. O. ANDERSON, CHMN.
213-486-3511

(5) ATLAS CORPORATION
485 MADISON AVENUE
NEW YORK, NY 10022
ATTN: EDWARD R. FARLEY, JR., CHMN & PRES.
212-644-1370

(6) BABCOCK & WILCOX CO.
161 E. 42ND STREET
NEW YORK, NY 10017
ATTN: G. G. ZIPF, CHMN., PRES., CHIEF EXECUTIVE
212-687-6700

(7) CONTINENTAL OIL

DENVER, CO
ATTN: ADOLPH MITTERER
303-244-4311

(8) COTTER CORPORATION

LAKEWOOD, CO 80215
ATTN: MILES FIXMAN
303-232-8218

(9) DAWN MINING COMPANY (FORD, WASHINGTON)
C/O NEWMONT MINING COMPANY
300 PARK AVENUE
NEW YORK, NY 10022
ATTN: J. E. THOMPSON, PRESIDENT OR
PLATO MALOZEMOFF, CHMN & CHIEF EXEC. OFF.
212-753-4800 (J. E. THOMPSON)

(10) DOW CHEMICAL CO.
ABBOTT ROAD
MIDLAND, MI 48640
ATTN: C. A. GERSTACKER, CHAIRMAN
C. B. BRANCH, PRES., CHIEF EXEC. OFF., & CHMN. EXEC. COMMITTEE
517-636-1000

(11) E.I. DuPONT de NEMOURS & COMPANY, INC.
9012 DuPONT BLDG.
WILMINGTON, DE 19807
ATTN: LAMMOT DuPONT COPELAND, DIRECTOR (can't find other)
302-744-1000 (E. SHAPIRO)

(12) COMBUSTION ENGINEERING, INC.
900 LONG RIDGE ROAD
STAMFORD, CT 06902
ATTN: A. J. SANTRY, JR., PRESIDENT
203-329-8771 (MR. BEMIS)

(13) EG&G
45 WILLIAM STREET
WELLESLEY, MA 02181
ATTN: B. J. O'KEEFE, CHMN., PRES., & CHIEF EXEC. OFF.
617-271-5000

(14) EXXON NUCLEAR CO.
106TH AVENUE NE
BELLEVUE, WA 98004
ATTN: RAYMOND L. DICKEMAN, PRESIDENT
509-946-9621

(15) GENERAL ATOMICS CO.
P.O. BOX 81608
SAN DIEGO, CA 92138
ATTN:
714-453-1000

(16) GENERAL DYNAMICS CORPORATION
PIERRE LACLEDE CENTER BLDG.
ST. LOUIS, MO 63105
ATTN: D. S. LEWIS, CHMN., CHIEF EXEC.

(17) GENERAL ELECTRIC CO.

FAIRFIELD, CT 06430
ATTN: DR. C. E. REED
203-373-2211

(18) GOODYEAR TIRE AND RUBBER
1144 E. MARKET STREET
AKRON, OH 44316
ATTN: C. J. PILLIOD JR., CHMN & CHIEF EXEC. OFF.
J. H. GERSTENMAIER. PRES., & CHIEF OPER. OFFICER
216-798-3000

(19) FEDERAL RESOURCES CORPORATION (FEDERAL AMERICAN PARTNERS IS A PROPERTY OF FRC)
1370 S. 400 WEST STREET
SALT LAKE CITY, UT 84115
ATTN: N. W. STALHEIM, CHMN. & PRES.
801-484-4382

(20) HOMESTAKE MINING COMPANY
650 CALIFORNIA STREET
SAN FRANCISCO, CA 94108
ATTN: P. C. HENSHAW, PRES. & CHIEF EXEC. OFFICER
415-981-8150 (MR. STOEHR)

(21) KERR-McGEE CORPORATION
KERR-McGEE CENTER
OKLAHOMA CITY, OK 73125
ATTN: D. A. McGEE, CHMN. & CHIEF EXEC. OFFICER
JAMES J. KELLY, PRES. & CHIEF OPER. OFFICER
405-236-1313 (J. RAINEY)

(22) MALLINCKRODT, INC. (FORMERLY MALLINCKRODT CHEMICAL WORKS)
MALLINCKRODT & 2ND
ST. LOUIS, MO 63147
ATTN: HAROLD E. THAYER, CHAIRMAN & CHIEF EXEC. OFFICER
314-231-8980

(23) MARTIN-MARIETTA CORPORATION
11300 ROCKVILLE PIKE
ROCKVILLE, MD 20852
ATTN: GEORGE M. BUNKER, PRESIDENT
301-881-0770

(24) MONSANTO CHEMICAL CO.
800 N. LINDBERGH BLVD.
ST. LOUIS, MO 63166
ATTN: FRANK E. REECE, VICE PRESIDENT
314-694-3603

(25) NL INDUSTRIES, INC. (FORMERLY NATIONAL LEAD CO.)
1221 AVENUE OF THE AMERICAS
NEW YORK, NY 10020
ATTN: J. W. DeDAPPER, VICE PRESIDENT, NUCLEAR DIVISION
212-730-2700

(26) NUCLEAR FUEL SERVICES

ROCKVILLE, MD
ATTN: MR. ROBERT CURRY, VICE PRESIDENT
301-770-5510

(27) PHILLIPS PETROLEUM CO.

BARTLESVILLE, OK 74003
ATTN: MR. D. FRYHOFFER, ENERGY MINERALS DIVISION
918-661-5674

(28) ROCKWELL INTERNATIONAL CORPORATION
ATOMICS INTERNATIONAL DIVISION

CANOGA PARK, CA
ATTN: DR. M. E. REMLEY
213-341-1000

(29) TEXAS INSTRUMENTS
ENERGY PRODUCTS DIVISION
34 FOREST STREET
ATTLEBORO, MA 02703
ATTN: DR. J. W. ROSS
617-222-2800

(30) UNION CARBIDE CORPORATION

OAK RIDGE, TN 37830
ATTN: MR. KEN H. BAHLER, VICE PRES., NUCLEAR DIVISION
615-483-8611

(31) UNITED NUCLEAR CORPORATION
101 EXECUTIVE BLVD.
ELMSFORD, NY 10523
ATTN: J. R. BANCROFT, CHMN.
914-592-7902

(32) U.S. NUCLEAR, INC.
P.O. BOX 680
OAK RIDGE, TN 37830
ATTN: ARTHUR H. JAMES
615-482-4026

(33) UTAH CONSTRUCTION (UTAH INTERNATIONAL, INC.)
550 CALIFORNIA STREET
SAN FRANCISCO, CA 94104
ATTN: C. K. McARTHUR, MGR., METAL MINING
415-981-1515

(34) UTAH INTERNATIONAL
RIVERTON, WY 82501
ATTN: GLEN DOOLEY
307-457-6626

(35) WESTERN NUCLEAR, INC.
SUBSIDIARY OF PHELPS DODGE
300 PARK AVENUE
NEW YORK, NY 10022
ATTN: MR. RICHARD MOOLICK, VICE PRESIDENT, PHELPS DODGE
PRESIDENT, WESTERN NUCLEAR
212-751-3200

(36) WESTINGHOUSE
3 GATEWAY CENTER
P.O. BOX 868
PITTSBURGH, PA 15222
ATTN: A. L. BETHEL, VICE PRES., URANIUM RESOURCES, 412-255-3841
D. BERG, TECHNICAL DIRECTOR, URANIUM RESOURCES, 412-255-3846

APPENDIX B

DESCRIPTION OF THE WELDON SPRING FEED MATERIAL FACILITY

APPENDIX B

DESCRIPTION OF THE WELDON SPRING FEED MATERIAL FACILITY

INTRODUCTION

The Weldon Spring Feed Material facility was an integrated uranium production complex situated about 25 miles due west of St. Louis, Missouri. The facility was located on about 220 acres of gently rolling cleared land. The chemical plant proper, which is under the jurisdiction of the U.S. Army, occupies approximately 170 acres of this area. The AEC (now ERDA) retained responsibility for and jurisdiction over the adjacent approximately 50 acres which contain the tailings (raffinate pits) from the uranium refining operation.

Construction of the center was started in March of 1955 and completed in December 1958. The cost of the facility, excluding the value of the land, was $62,500,000 as of April 30, 1966, just prior to cessation of operations.

Operations carried on at the Weldon Spring facility included: sampling of ore concentrates; refining to uranyl nitrate; denitration to UO_3, reduction to UO_2, hydrofluorination to UF_4 and magnesium reduction to uranium metal. The output of the several processing units varied from 8,000 to 20,000 tons of purified uranium metal and compounds per year. The usual utilities and services were integrated into the complex. Extensive laboratory and pilot plant facilities were installed to insure that all production would meet rigorous quality standards as well as to conduct an aggressive chemical and metallurgical research development program. The plant was operated by the Mallinckrodt Chemical works on behalf of the AEC, from 1957 through 1966, at which time reduced needs for uranium feed materials prompted its shutdown by the AEC, and transfer of all refining operations to the Feed Materials Production Center (FMPC) at Fernald, Ohio.

Following the cessation of plant operations at the close of 1966, the AEC investigated private sector interest in acquiring the Weldon Spring facilities and canvassed nearly 100 companies believed to have a potential application for the facility. (The following description of the facility is an updated version of the description provided by the AEC at that time).

The 1967 attempt to dispose of the facility was abandoned before completion, upon activation of U.S. Army plans to convert a portion of the facility to the manufacture of Herbicide Orange for use in Southeast Asia. Uranium process equipment was removed from three buildings (101, 103, and 105), and the buildings were partially decontamined from the radiological contamination engendered by their use for uranium processing. Subsequently, the increasing industrial production of Herbicide Orange and the decreasing need for defoliant caused the abandonment of the conversion just as installation of Herbicide Orange processing equipment was commencing. Since then the facility has remained idle, in a caretaker status.

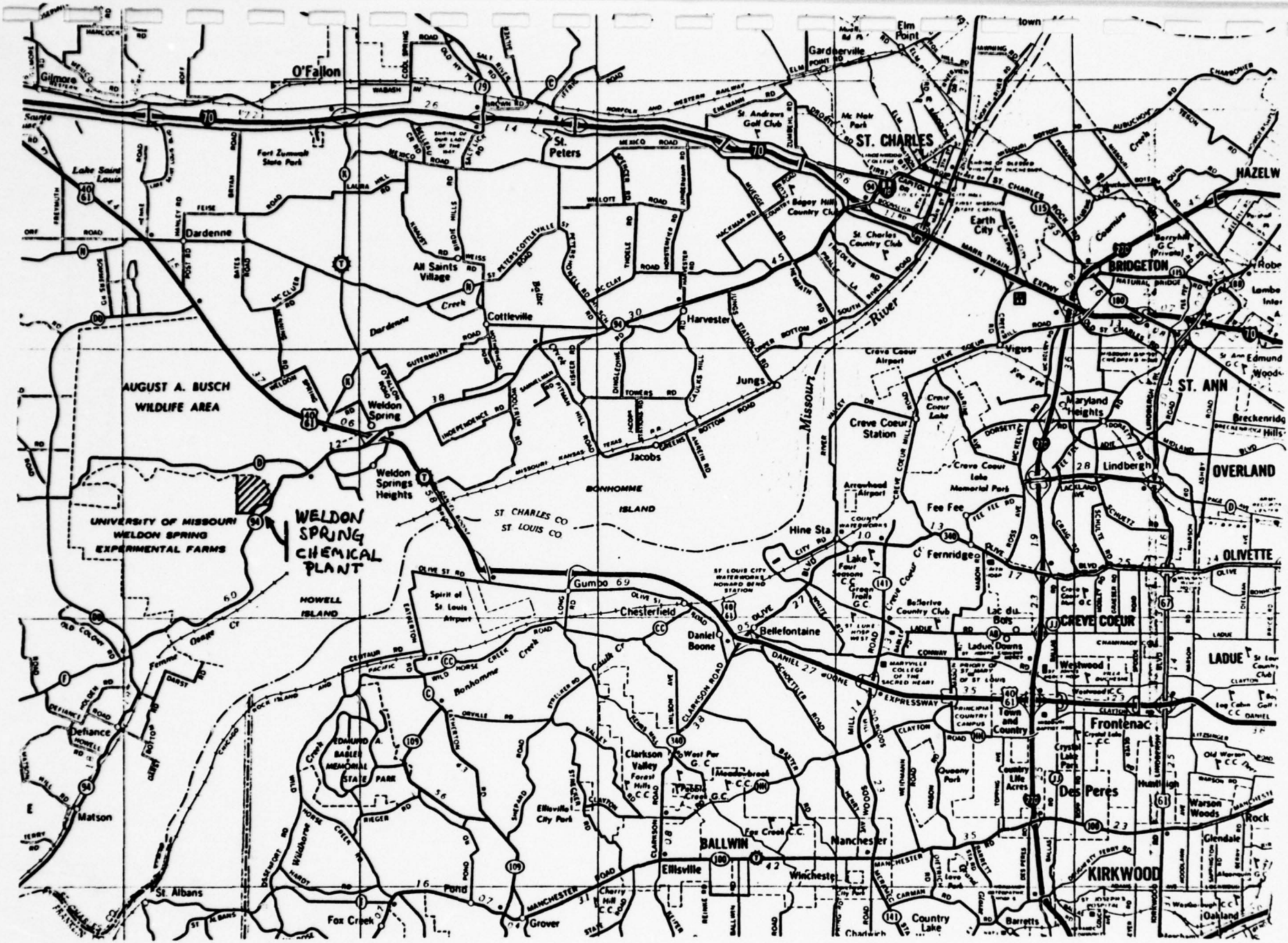
GENERAL DESCRIPTION OF THE WELDON SPRING SITE AND FACILITIES

The Weldon Spring Chemical Plant is in Missouri about 25 miles due west of downtown St. Louis, 35 minutes by automobile from the Lambert-St. Louis Municipal Airport. The facility is situated in the St. Charles County countryside on State Highway 94, less than two miles from the junction of Highway 94 and U.S. Route 40 (See map). The Production Center is located on about a 170 acre gently rolling plot of cleared land. The building area has been graded level. The site is enclosed by a seven foot high cyclone fence topped by three strands of barbed wire with a perimeter road along the inside. The building area is approximately 8,000 feet from the Missouri River. The average elevation is 650 feet above sea level, and 200 feet above the river bottom, well above the highest reported flood stage. Construction of the Weldon Spring Production Center was started in March of 1955 and completed in December 1958. Further improvements were made during the approximately 9 years operation of the plant. The cost of the facility, exclusive of land, was approximately $62,500,000 as of April 30, 1966.

There are twelve major buildings and a number of miscellaneous buildings on the site. Sprinkler systems were installed in most of the buildings. The major structures include four process buildings, two pilot plants, a large laboratory, a personnel service building with a cafeteria, an air-conditioned administration and engineering office building, a boiler house, and a maintenance building (see sketch of plant site).

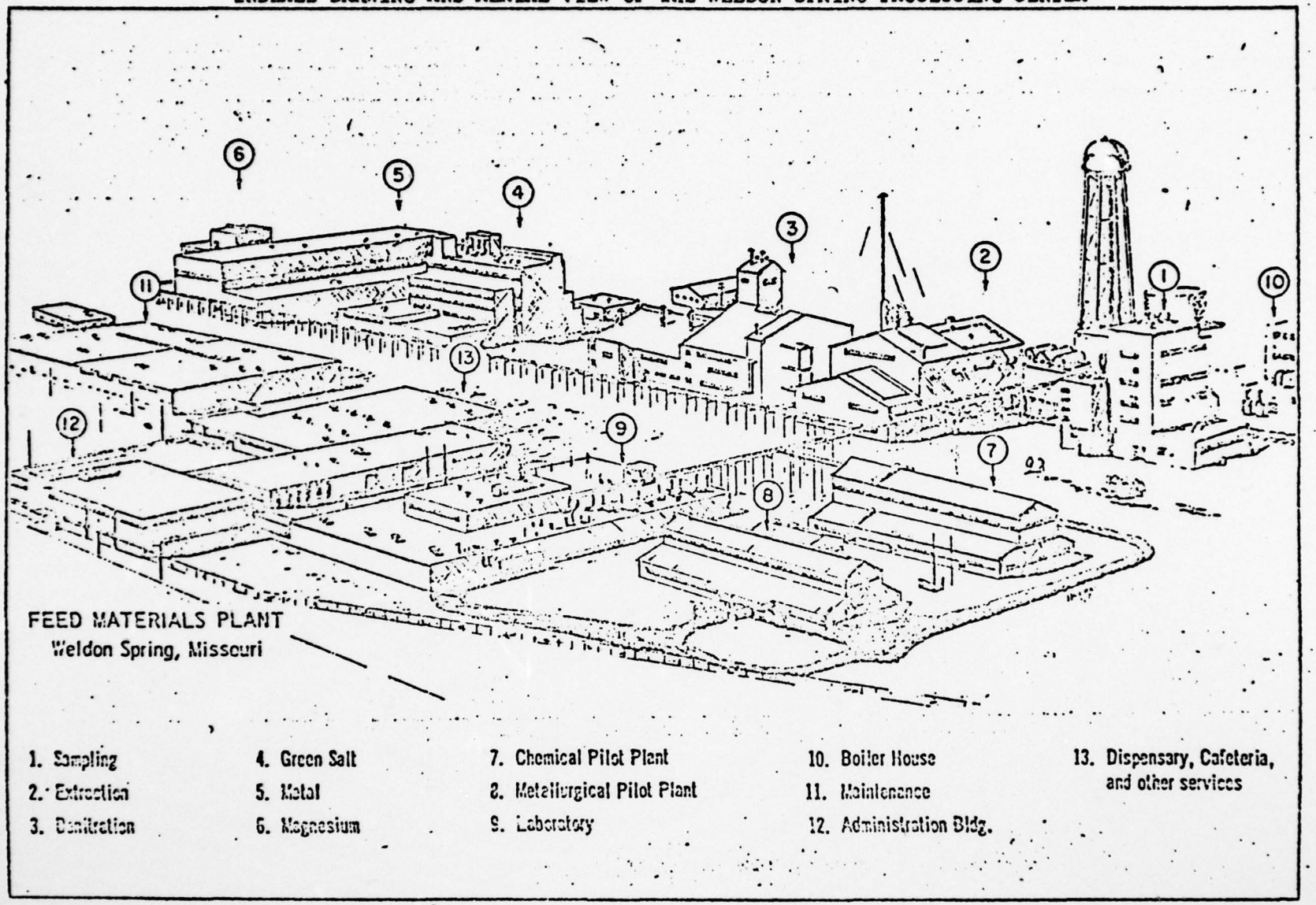
A paved 850-car parking lot is included in the fenced area. The building area is landscaped and lighted. The buildings are steel framed, single- and multi-storied, industrial type structures with fire resistant roofs. The gross ground floor ar[illegible]r roof of the major buildings exceeds eight acres. More detailed d[illegible], of the buildings are given later in this report.

All of the facilities are accessible by paved plant roads. The usual utilities are installed and available. These include electricity, water, steam, storm and sanitary sewers, propane gas and a railroad spur.



ST. CHARLES - ST. LOUIS AREA AND WELDON SPRING PLANT SITE

INDEXED DRAWING AND AERIAL VIEW OF THE WELDON SPRING PROCESSING CENTER



1. Sampling
2. Extraction
3. Denitration
4. Green Salt
5. Metal
6. Magnesium
7. Chemical Pilot Plant
8. Metallurgical Pilot Plant
9. Laboratory
10. Boiler House
11. Maintenance
12. Administration Bldg.
13. Dispensary, Cafeteria, and other services

DESCRIPTION OF PROCESSING FACILITIES

The Weldon Spring Production Center operated as an integrated facility to convert uranium concentrates and recycle scrap to pure uranium trioxide, uranium tetrafluoride, and uranium metal. Production steps involved physical, chemical, and metallurgical processes. Tonnage quantities of purified products were produced from ore concentrate using highly reactive reagents. Laboratory and pilot plant facilities were installed to conduct an extensive metallurgical and chemical research and development programs, as well as to conduct an intensive quality control effort in support of the operation. A general description of the major buildings and production processes along with a description of certain of the associated utility and service facilities is given below. A more detailed description of the production processes is given in the next section of this report.

Sampling Plant (Building 101)*

The Sampling Plant is a multi-storied building approximately 244 feet long by 173 feet wide by 100 feet high. It has a floor area of over 28,000 square feet and encloses a volume of 585,000 cubic feet. The facility was designed to physically take a representative sample from a large lot of ore concentrate and then to package the material into drums or hoppers. The concentrates varied in value from four to twelve dollars per pound. They were sampled for payment purposes. The total value of a lot of concentrate sometimes exceeded $250,000. The capacity of the plant on a single shift is about 75 tons per day. The plant was constructed and equipped at a cost of about $3,000,000.

Refinery (Building 103 and Building 105)*

Refinery operations were conducted in two buildings: Building 103, the digest and denitration building; the Building 105, the extraction building. Building 103 is 254 feet long by 120 feet wide by 55 feet high, with a

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* Buildings 101, 103, and 105 were vacated, process equipment removed, and partially decontaminated in preparation for the planned (but unconsummated) manufacture of Herbicide Orange by the U.S. Army.

floor area of over 32,000 square feet and a volume of 1,519,000 cubic feet. Building 105, is 182 feet long by 102 feet wide by 61 feet high, with a floor area of over 18,000 square feet and a volume of 1,172,000 cubic feet. The facility was designed and equipped to chemically process uranium concentrates and recycle scrap to produce pure uranium trioxide (UO_3) commonly known as orange oxide. The UO_3 was produced in three steps: (1) digestion with nitric acid, (2) purification by solvent extraction, and (3) denitration of a uranyl nitrate solution. The capacity of the plant varied with the quality of the feed stock. With good feed the plant could operate continuously at rates in excess of 60 tons per day of UO_3. The facility was constructed and equipped at a cost of about $12,100,000.

Green Salt (Building 201)

Building 201 is a multi-storied building, 192 feet long by 110 feet wide by 74 feet high, with a floor area of over 69,000 square feet and a volume of 1,286,000 cubic feet. The facility was designed to convert UO_3 to uranium tetrafluoride (UF_4) commonly known as green salt, using hydrogen gas and hydrogen fluoride. The equipment is constructed with materials resistant at high temperatures to hydrogen-fluoride. The plant was never operated at capacity, however, engineering estimates indicate that it could operate producing high quality UF_4 at rates up to 16,000 tons of UF_4 per year. The plant was constructed and equipped at a cost of about $7,900,000.

Metal Plant (Building 301)

The metal plant building is 320 feet long by 171 feet wide by 52 feet high with a floor area of over 53,000 square feet and a volume of over 2,500,000 cubic feet. The facility was designed to produce, 3,300 pounds pure uranium reguli by a thermite-type reaction between UF_4 and ground magnesium, and to hot extrude the reguli into 7-inch diameter billets. A limited machining capability is available in this plant. Engineering estimates indicate that the plant could produce up to 8,000 tons per year of

metal. The plant was constructed and equipped at a cost of about $8,500,000.

Laboratory and Pilot Plants

As noted earlier extensive laboratory facilities were installed, to support operations, to insure that the products would meet rigorous quality standards, and to conduct an aggressive chemical and metallurgical R&D program.

The laboratory building is a single-storied, air-conditioned structure connected to the administration building and the service building by enclosed passageways. The floor area is in excess of 47,500 square feet. It is divided into control laboratories, chemical development laboratories, metallurgical development laboratories, a library, and offices. Associated with the laboratory are three pilot plant buildings. The two main buildings are multi-storied measuring 140 feet by 70 feet each. A third smaller single-storied building is situated between the two main pilot plant buildings.

The chemical and metallurgical laboratories were fully equipped with a large variety of modern equipment. Some of the techniques and instruments used in the chemical laboratories are: X-ray fluorescence, spectrochemical, mass spectroscopy, vacuum equipment, atomic absorption, infrared equipment, gas chromatography, thermobalance, controlled atmosphere furnaces, radiochemistry, and of course, all of the usual wet chemical equipment and instruments. The metallurgical laboratories were equipped to perform both routine and rapid quality certifications as well as to conduct extensive research and development activities. Some of the techniques and instruments used were sample preparation equipment, optical and metallographic microscopes, electron microscopes and associated equipment, photographic facilities, X-ray diffraction equipment, electron microprobe facilities, and a materials testing facility. The acquisition cost of the equipment in the laboratories was over 2,250,000. Most of the laboratory equipment is still in place.

The pilot plants were equipped to conduct either wet or dry pilot plant work. Processes have been tested out in these buildings at operating rates of one ton per day.

It has been estimated that the laboratories could productively support up to 100 professional men along with a full complement of technical assistants.

Administration Building (Building 409)

Building 409 is a two-storied air-conditioned building with 37,800 square feet of gross floor area. It is divided by moveable partitions into administrative offices, engineering offices, and conference rooms. All of the offices are well lighted. The general office space is illuminated at a level of 120 foot-candles. Covered passageways connect the administration building with the service building and the laboratory. One of the paved parking lots is adjacent to the front of the building. It has been estimated that working space could be provided for 200 to 250 administrative and engineering people in building 409.

Service Building (Building 410)

The service building is of single story construction with a floor area of approximately 53,000 square feet. Included in the building are clean and dirty locker rooms with 1,500 lockers installed, a first aid section, a cafeteria capable of seating 430 persons, a small dining room, a laundry, a garage for an ambulance, and an emergency rescue truck, and guard offices.

Maintenance Building (Building 408)

The maintenance building is a single-storied building with about 70,000 square feet of floor space. The facility is equipped to maintain the Weldon Spring complex. A variety of metal working machines are installed in the building.

Approximately 30,000 square feet of the building is devoted to the following shops: machinist, millwright, pipefitter, welder, tinner, rigger, carpenter, auto repair, electrician, and instrumentation. Separate buildings are provided for heavy equipment storage and for a paint shop.

Warehouse

A raw materials storage warehouse with loading docks for receipt of material is located on the rail siding. Other miscellaneous warehouses are also available on the site.

Utilities

All of the usual utilities are available on the site. Each is briefly discussed below as a sub-topic.

Steam Plant

The steam plant is housed in a multi-storied fireproof building. It includes three Eric Iron Works boilers, each with a capacity of 72,000 pounds per hour of 130 PSIG steam at 90 F superheat; boilers were fired with screened bituminous coal. Air compressors, refrigeration equipment and a 1000 KW emergency diesel power generator are also located in the steam plant building.

Water

Facilities for furnishing water are located nearby. A 300,000 gallon elevated storage tank on the site provides ample water for emergency use. The capacity of the wells and pumps in the supply system exceed 10,000,000 gallons per day, with 7,500,000 gallons in storage. All of the water supplied is potable.

Gas

Gas for process heat was furnished by burning propane piped from storage tanks. Fuel gas is supplied at 3 PSIG at an average flow of 136 scfm with a heating value of 1350 Btu per cubic foot.

Electricity

Electricity is supplied by Union Electric Company of Missouri at 34.5 KV to the main substation. Electric power is distributed throughout the plant at 480,208 and 120 volt.

Compressed Air

Compressed air is supplied from a compressor located in the steam plant building. Air is provided at 100 psi by four Joy compressors with a combined capacity of 2200 CFM for process requirements, pneumatic tool operation, and control instruments.

Tank Farm

A partial list of the reagent storage tanks on site is as follows:

70 Percent hydrofluoric acid: 3- 13,500 gal. tanks
Anhydrous HF: 4 - 13,500 gal. tanks
Ammonia: 2 - 13,500 gal. tanks
Hexane: 1 - 18,900 gal. tank
Ethyl ether: 1 - 18,900 gal. tank
Sulphuric acid: 1 - 18,900 gal. tank
Dilute nitric acid: 2 - 25,900 gal. tanks
Concentrate nitric acid: 5 - 25,900 gal. tanks
Propane: 2 - 30,000 gal. tanks

Railroad

The site is served by a spur from the mainline of the MKT railroad. A double track siding with three switches is located behind the main processing buildings.

Fire Protection

Installed fire prevention equipment such as sprinklers, deluge systems, and portable fire extinguishers are available throughout the Weldon Spring Chemical Plant. Additional backup protection is provided by mobile fire fighting emergency equipment centrally located at the service building.

DESCRIPTION OF URANIUM PRODUCTION FACILITIES AND TECHNOLOGY

The preceding description of the Weldon Spring Production Center presented a view of the physical facility. However, the technical capabilities of the site are better presented by looking at the installed production equipment and considering the uranium production technology used at the facility. It may be possible by extrapolating from these data to visualize other applications for this complex.

The Weldon Spring Production Center operated as an integrated uranium production facility. Physical, chemical, and metallurgical operationswere used. Uranium ore concentrates were received and sampled for payment purposes, and processed along with recycled scrap to pure uranium chemicals and metal. Precise material accountability controls were maintained. Overall recoveries were about 99%. Strict quality control was enforced throughout the operation in order to guarantee that the finished product would always meet the high standards required in the atomic energy industry. An abridged description of operation and technology associated with each of the major plants is presented below.

Sampling Plant

Concentrates shipped from various mills were sampled and analyzed for payment purposes. The concentrates were received in lots, some containing as much as 25,000 pounds of uranium and valued at nearly a quarter of a million dollars per lot. Two methods of sampling were used: AUGER Sampling and MECHANICAL Sampling. The concentrates were received in 30 and 55 gallon drums, sampled and repackaged into drums for storage or portable hoppers for transport to the refinery. Equipment in the sampling plant included a drum elevator, a bucket elevator, screens, hoppers, a hammer mill, a jaw crusher, sample cutters, a calcining furnace, and drying furnaces. An extensive dust-collection system protected the personnel and the environment from exposure or contamination. *

The capacity of the plant on a single shift is about 75 tons per day. The empty drums were washed and used internally or sold. The plant operated with 11 to 17 direct employees.

Refinery(**)

Uranium trioxide (UO_3) was produced in three steps: digestion, purification, and denitration. The feed consisted of ore concentrates and a variety of uranium bearing scrap materials.

> Digestion -- Ore concentrates and some varieties of scrap were added to strong nitric acid in 4000 gal. stainless steel digest tanks and heated to dissolve the uranium. Other varieties of scrap were treated in sidestream production lines and the solution or slurry blended into the main process stream. The slurry resulting from the dissolution of the feed contained uranyl nitrate, small amounts of excess nitric acid, and all of the soluble and insoluble impurities contained in the original feed. The nitric acid in the off-gases generated in the digestion step were collected and recovered as nitric acid for reuse. The slurry containing about 400 grams per liter of U was pumped to stainless steel extraction feed tanks preparatory to the purification step. All spills and leaks were collected in a sump system and recycled to the digestion step.

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* This equipment has been removed from the sampling plant.

** Refinery process equipment has been removed and disposed of.

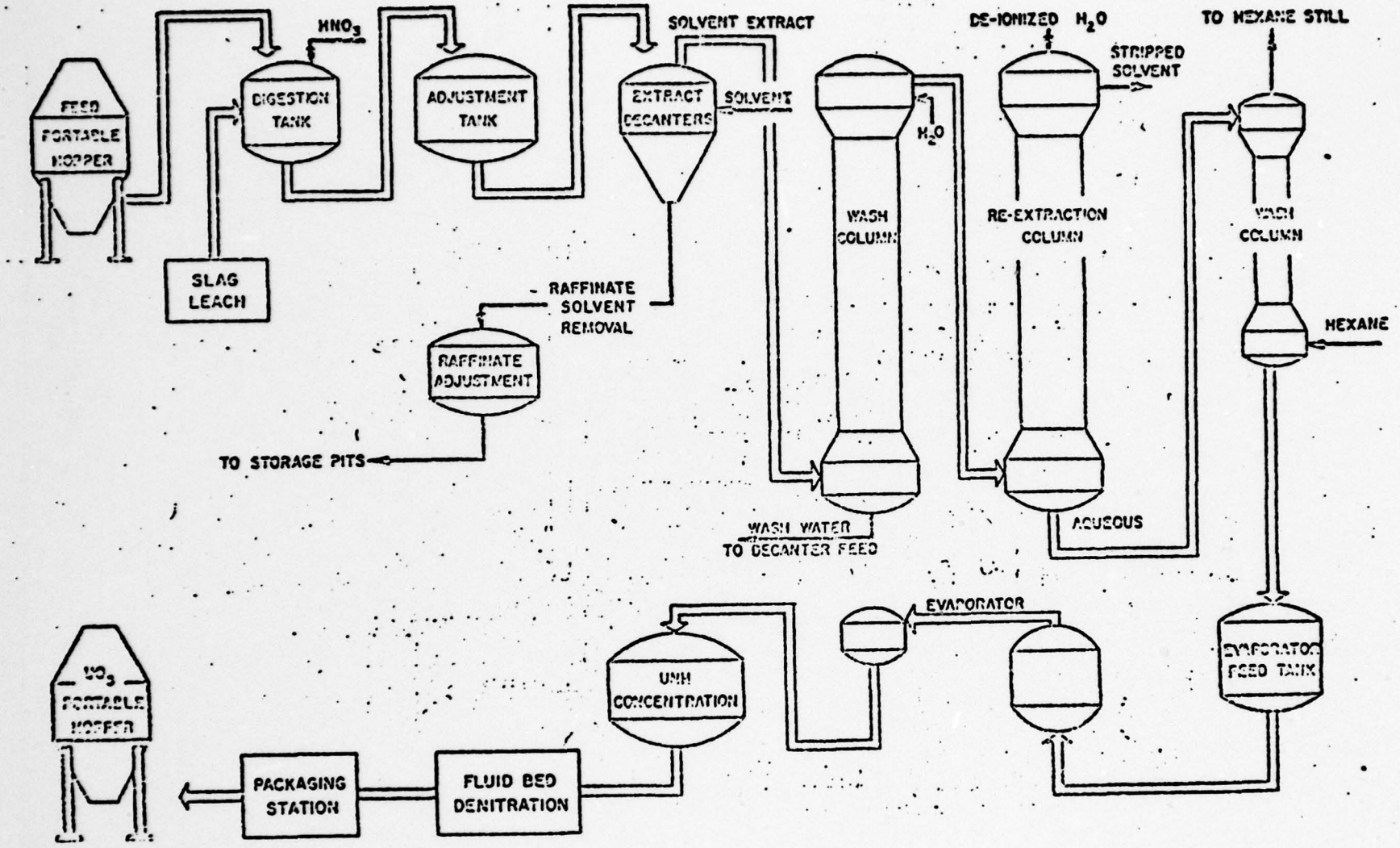
Purification -- In this step the uranyl nitrate was separated from the impurities in the digest slurry by a liquid-liquid solvent extraction process. The slightly acid slurry was mixed with a 30% tributyl phosphate (TBP)-hexane solution. Pumper-decanters developed for this application were used. They intimately mix then efficiently separate the aqueous digest slurry and the organic solvent. During the mixing the uranyl nitrate transfers to the organic phase. When the phases separate, the TBP contains the uranyl nitrate plus very small amounts of impurities. The raffinate was processed to recover residual TBP-hexane, neutralized, and stored in open pits.

The organic phase containing the uranyl nitrate was pumped through an electrostatic precipitator to remove entrained aqueous impurities. The remaining soluble impurities were removed from the solvent by washing it with a small quantity of water in a pulse column. The wash water was returned to the pumper-decanters for reprocessing. The uranyl nitrate was extracted from the organic phase in a second pulse column by extracting it into a relatively large volume of pure deionized water. The water solution was washed free entrained TBP in a hexane spray column. The last traces of hexane were removed by boiling the solution to leave a pure uranyl nitrate solution. This solution was transferred to the denitration step for further processing. The TBP and the hexane were treated with sodium carbonate to remove degradation products and recycled.

Denitration -- The highly purified uranyl nitrate solution from the purification step was boiled down to concentrate the solution. The condensate containing nitric acid and water was recycled. The concentrated uranyl nitrate solution was pumped to gas-fired stainless steel denitration pots or to a fluid bed where the uranyl nitrate was thermally decomposed to orange oxide (UO_3). The nitric acid and steam were collected in a nitric acid recovery unit and recycled to the digestion tanks. As a result of the efficient recovery of nitric acid throughout the process, the nitric acid consumption was primarily that associated with the dissolution of the soluble impurities in the concentrate and scrap rather than acid used to react with the uranium in the feed. The UO_3 was packaged into drums or hoppers for shipment off-site or to the green salt plant.

Product recovery of soluble uranium theoretically can approach 100%. Actual recoveries were determined by economic considerations and usually exceeded 99%. The plant was highly mechanized and automated.

WELDON SPRING REFINERY



PRODUCTION OF PURE URANIUM TRIOXIDE

Green Salt Plant

Uranium tetrafluoride (UF_4) was produced by reducing UO_3 to UO_2 with hydrogen followed by the hydrofluorination of the UO_2.

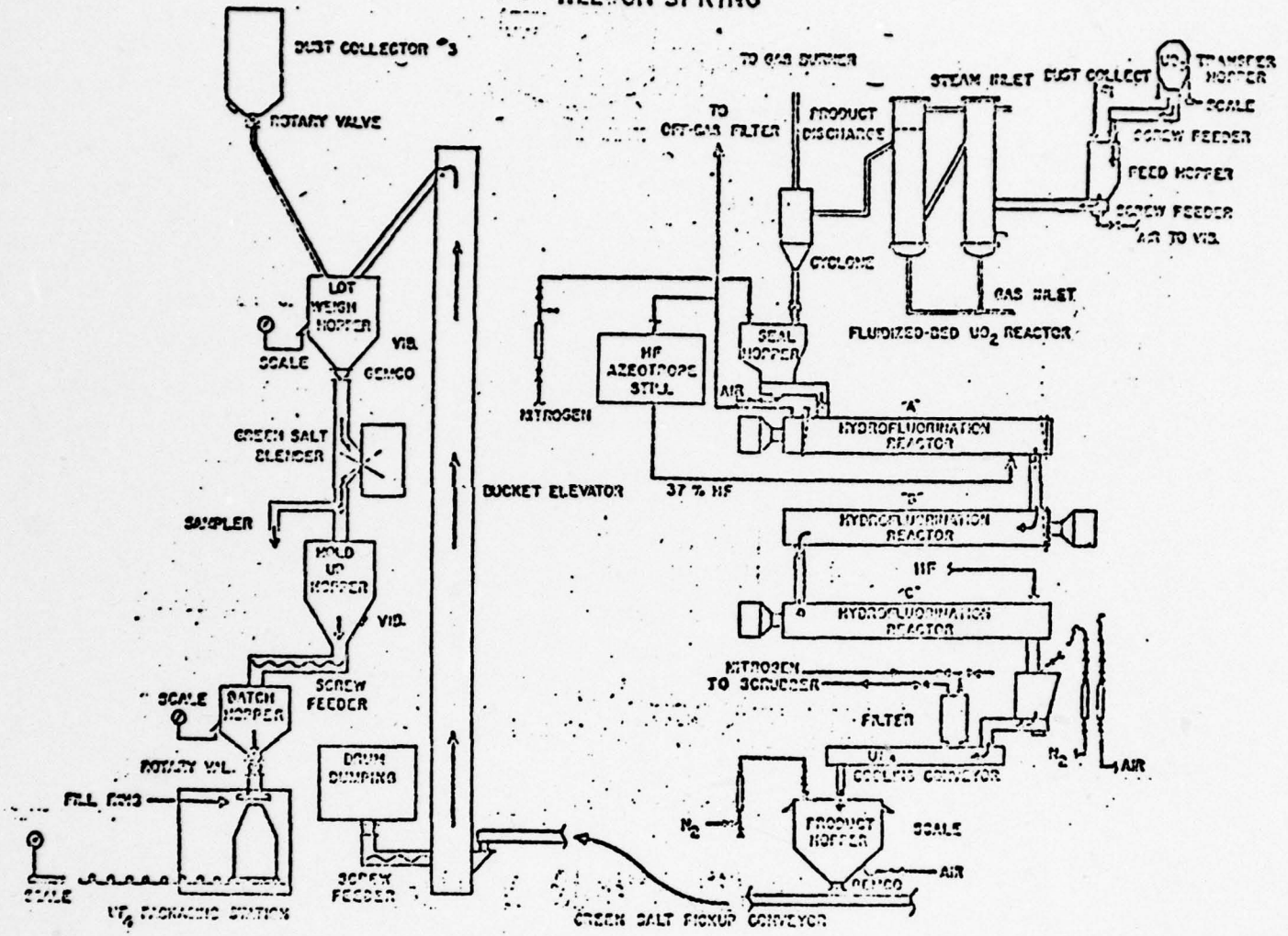
Reduction -- UO_3 received from the refinery was transferred to feed hoppers where it is fed into one of the four processing lines. From the hopper it entered the first stage of a two stage fluid bed reduction reactor. Cracked ammonia (hydrogen and nitrogen) introduced into the bottom of the heated fluid beds fluidized the powder. The hydrogen reacted at about 550 C with the UO_3 to reduce it to UO_2. The off-gases were passed through sintered metal filters to remove any suspended uranium oxides. The excess hydrogen was flared and the gases vented to the air. The uranium dioxide from the second fluid-bed stage was fed directly to first hydrofluorination reactor, or if desired was removed as an end product.

Hydrofluorination -- In this step the UO_2 was reacted with hydrogen fluoride to produce uranium tetrafluoride (UF_4), commonly known as green salt. The UO_2 from the fluid beds was fed directly into the top of one of four banks of hydrofluorination reactors. Each bank contains three electrically heated horizontal tubes about 22 feet long by 16" in diameter arranged in a vertical stack.

The UO_2 entered the top tube through a sealed hopper and was slowly pushed to the other end by a motor driven spiral screw. The powder was discharged into a sealed hopper and fed into the middle tube and then to the bottom tube. Hydrogen fluoride gas introduced at the discharge end of the bottom tube flowed counter current to the uranium. The HF reacted with the powder to convert the UO_2 to UF_4. The reaction was completed in the third tube from which uranium tetrafluoride was discharged. Within the three reactors temperatures were controlled in zones varying from about 230 C to 590 C. Reactor off-gases were filtered and condensed to recover the hydrogen-fluoride. The condensate was distilled to obtain a constant boiling mixture containing about 38% hydrogen fluoride which was recycled to the hydrofluorination reactors. From the bottom reactor green salt passed through a cooling screw into a receiving hopper and then by elevator to a weighing hopper. The latter weighs out a charge of green salt and drops it into a blender. The blended green salt was weighed at the hopper and transferred to the metal plant or packaged for shipment to other sites.

GREEN SALT PLANT

WELDON SPRING



PRODUCTION OF URANIUM TETRAFLUORIDE

The yield of U in UF_4 in a single pass through the system was over 98%. The remaining 2% recovered from dust collectors, equipment cleanups and spills was reverted with steam in a screw reactor bank to convert it to an oxide and recycled to the refinery so that the overall recovery was over 99.9%. The plant never operated at capacity. Engineering estimates indicate that it could operate at rates of 8000 to 16,000 tons per year of UF_4. Like the refinery, the plant was highly mechanized and automated, and operated with 12 to 25 direct employees.

Metal Plant

Uranium metal was made by reducing UF_4 with magnesium. The uranium regulus resulting from the thermite type reaction was cleaned ad shipped off-site or further fabricated on-site. The fabrication involved hot extrusion into 7" diameter ingots. Also for a short period solid uranium rods were machined to produce hollow round fuel elements approximately 8" long by 1-1/2" O.D. by 1/2" I.D. All scrap was recycled.

UF_4 Reduction -- The UF_4 received from the green salt plant was mixed with magnesium metal chips. About 700 lbs of chips were blended with over tow tons of UF_4. The mixture was charged into a previously prepared magnesium fluoride (slag) lined steel bomb. The charge was covered with a layer of slag and a steel lid bolted to the steel shell. The bomb was placed on a car that formed the bottom of an electrically heated furnace, moved into a furnace, held at about 1150 F until the center of the charge reached a temperature of about 500 F, then the charge was electrically ignited and the UF_4 was exothermically reduced to metal. The heavy molten uranium settled into a mold cavity in the bottom of the bomb and the slag floated to the top. The bomb was moved outdoors and allowed to cool for about three days. After cooling the MgF_2 slag, the MgF_2 liner, and the uranium regulus were removed from the steel bomb. The bomb was relined to receive the next charge. The metal was cleaned with an air hammer, machined if necessary, and transferred to the next step or shipped off-site.

The MgF_2 slag was ground and classified. Bits of free uranium and magnesium were physically removed. The slag was used as a refractory to line the reduction bomb. The bomb liner and excess slag were sent to the refinery for treatment to recover the contained uranium.

Metal recovery in the reduction step exceeded 95%. Overall recovery of uranium was over 99%.

Extrusion -- In this step massive pieces of metal about 18" high by 18" in diameter, called dingots, were extruded in the gamma phase (1430 F to 2060 F) into 7" diameter billets. The dingots were heated in an induction furnace. The extruded billets were air cooled, cut into convenient lengths, inspected, sampled and shipped off-site. The extrusion operation was conducted in a 1750 ton press.

Machining -- The Weldon Spring facility was operated for about 18 months to supplement the production of fuel elements at other AEC sites. Solid rods of uranium about 12 feet long by 1-1/2" in diameter were machined into 8" long by 1 to 1-3/8" diameter hollow fuel elements. Conventional type machine tools were used. Demonstrated production exceeded 1000 tons of elements per year.

The rate of operation and the type of product produced varied widely during the operation of the Metal Plant. For this reason production cost and manning data cannot be simply presented.

November 1, 1976

Mr. Charles L. Suplee
E.I. DuPont de Nemours & Company, Inc.
9012 DuPont Bldg.
Wilmington, DE 19807

Dear Mr. Suplee:

This is to confirm our telephone conversation of this afternoon regarding additional information on the Weldon Spring Chemical Plant. I have enclosed a brief description of the facility which is an updated version of a prior AEC publication.

As we discussed, the Army is desirous in determining and identifying private sector interest in the Weldon Spring facility in order that they may proceed with other options in the final disposition of the property. As noted in the description, the Army abandoned plans in 1967 to convert the facility for the production of Herbicide Orange. All of the equipment purchased for the production of Herbicide has since been returned to the manufacturer or excessed as surplus. Since 1967 the facility has remained inactive and in a caretaker status.

Should you require any additional information regarding the facility and property, we shall be happy to supply it. We would hope that DuPont would be in a position to indicate what, if any, interest in the facility at an early date as the Army is most anxious to proceed with other options in the final disposition of the property. You can reach me direct at 614-424-7791.

Very truly yours,

Harley L. Toy
Assistant Group Manager
Physics, Electronics, and
Nuclear Technology

HLT:lbs

Enc. (1)

FILE COPY

October 27, 1976

Mr. K. W. Bahler, Vice President
Nuclear Division
Union Carbide Corporation
P.O. Box Y
Oak Ridge, Tennessee 37830

Dear Mr. Bahler:

This will follow up our telephone conversation of this morning regarding additional information on the Weldon Spring Chemical Plant. I have enclosed a brief description of the facility which is an updated version of the old AEC publication.

As we discussed this morning, the Army is desirous in determining and identifying private sector interest in the Weldon Spring facility in order that they may proceed with other options in the final disposition of the property. We shall be happy to furnish whatever additional information you may require. Should you so desire, we can make the necessary arrangements for you or other representatives of Union Carbide to meet with the Army to discuss the facility in greater detail. We would hope that Union Carbide would be in a position to indicate their interest in the facility at an early date. Should you have any questions regarding the enclosed description of the facility or information regarding further negotiation, please call on us. You can reach me direct at 614-424-7791 and Mr. Robert Ewing at 614-424-4720.

It was a pleasure discussing the Weldon Spring facility and enjoyed your comments about your earlier days in Columbus. Look forward to hearing from you again.

Very truly yours,

Harley L. Toy
Assistant Group Manager
Physics, Electronics, and
Nuclear Technology

HLT:lba

Enc.

October 25, 1976

Mr. Dan Berg
Westinghouse, Inc.
3 Gateway Center
Pittsburgh, Pennsylvania 15222

Dear Mr. Berg:

Confirming our recent telephone conversation I am enclosing a brief description of the Weldon Spring Feed Material facility for your information. The description of the facility is a slightly revised version of the one prepared by the AEC some years ago, and is undoubtedly not entirely accurate.

Since the Army is quite desirous of identifying any private sector interest in the Weldon Spring facility so that it can proceed with the investigation of other alternatives if there is none, I hope that your firm can indicate any positive interest at an early date.

If you desire additional information on the facility and the site please let us know. We can arrange for this to be supplied, either by us, or by the Army, if we are unable to supply the desired information. Also, I am certain that the Army could arrange for representatives of your firm to inspect the site, should your interest extend that far.

Yours truly,

R. A. Ewing
Senior Research Engineer
P.E. 24549
Energy Systems and Environmental
Research Section

RAE:lm

October 25, 1976

Mr. Richard C. Ross
United Nuclear Corporation
7700 Leesburg Pike
Falls Church, Virginia 22042

Dear Mr. Ross:

Confirming our recent telephone conversation I am enclosing a brief description of the Weldon Spring Feed Material facility for your information. The description of the facility is a slightly revised version of the one prepared by the AEC some years ago, and is undoubtedly not entirely accurate.

Since the Army is quite desirous of identifying any private sector interest in the Weldon Spring facility so that it can proceed with the investigation of other alternatives if there is none, I hope that your firm can indicate any positive interest at an early date.

If you desire additional information on the facility and the site please let us know. We can arrange for this to be supplied, either by us, or by the Army, if we are unable to supply the desired information. Also, I am certain that the Army could arrange for representatives of your firm to inspect the site, should your interest extend that far.

Yours truly,

R. A. Ewing
Senior Research Engineer
P.E. 24549
Energy Systems and Environmental
Research Section

RAE:lm

Westinghouse
Electric Corporation

Westinghouse Building
Gateway Center
Pittsburgh Pennsylvania 15222

December 6, 1976

R.A. Ewing
Senior Research Engineer
BATTELLE
505 King Avenue
Columbus, OH 43201

RE: Weldon Spring Feed
Material Facility

Dear Mr. Ewing:

Mr. Dan Berg has referred to me your letter dated October 25th regarding the Weldon Spring Feed Material Facility.

I have reviewed this matter with several of our operating units including our Nuclear Fuel Division, and find we have no present or planned facility requirements for which we could use the Weldon Spring Feed Material Facility.

Thank you for bringing this to our attention. If a need develops in the future, I will contact you to discuss the matter further.

Sincerely yours,

A.R. Wood, Manager
Real Estate Department

bjz

cc: Mr. D. Berg - W Bldg.

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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(19) REPORT DOCUMENTATION PAGE

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Contaminated Property
Radioactive Contamination
GSA
Weldon Spring Chemical Plant, MO
Property Disposal
Canvass

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Report documents efforts to determine the slability of the Weldon Spring Chemical Plan through a canvass of the nuclear industry and to identify candidate purchasers.

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Block 10. Program Element, Project, Task Area, and Work Unit Numbers. Enter here the number code from the applicable Department of Defense form, such as the DD Form 1498, "Research and Technology Work Unit Summary" or the DD Form 1634, "Research and Development Planning Summary," which identifies the program element, project, task area, and work unit or equivalent under which the work was authorized.

Block 11. Controlling Office Name and Address. Enter the full, official name and address, including office symbol, of the controlling office. *(Equates to funding/sponsoring agency. For definition see DoD Directive 5200.20, "Distribution Statements on Technical Documents.")*

Block 12. Report Date. Enter here the day, month, and year or month and year as shown on the cover.

Block 13. Number of Pages. Enter the total number of pages.

Block 14. Monitoring Agency Name and Address *(if different from Controlling Office)*. For use when the controlling or funding office does not directly administer a project, contract, or grant, but delegates the administrative responsibility to another organization.

Blocks 15 & 15a. Security Classification of the Report: Declassification/Downgrading Schedule of the Report. Enter in 15 the highest classification of the report. If appropriate, enter in 15a the declassification/downgrading schedule of the report, using the abbreviations for declassification/downgrading schedules listed in paragraph 4-207 of DoD 5200.1-R.

Block 16. Distribution Statement of the Report. Insert here the applicable distribution statement of the report from DoD Directive 5200.20, "Distribution Statements on Technical Documents."

Block 17. Distribution Statement *(of the abstract entered in Block 20, if different from the distribution statement of the report)*. Insert here the applicable distribution statement of the abstract from DoD Directive 5200.20, "Distribution Statements on Technical Documents."

Block 18. Supplementary Notes. Enter information not included elsewhere but useful, such as: Prepared in cooperation with . . . Translation of *(or by)* . . . Presented at conference of . . . To be published in . . .

Block 19. Key Words. Select terms or short phrases that identify the principal subjects covered in the report, and are sufficiently specific and precise to be used as index entries for cataloging, conforming to standard terminology. The DoD "Thesaurus of Engineering and Scientific Terms" *(TEST)*, AD-672 000, can be helpful.

Block 20. Abstract. The abstract should be a brief *(not to exceed 200 words)* factual summary of the most significant information contained in the report. If possible, the abstract of a classified report should be unclassified and the abstract to an unclassified report should consist of publicly- releasable information. If the report contains a significant bibliography or literature survey, mention it here. For information on preparing abstracts see "Abstracting Scientific and Technical Reports of Defense-Sponsored RDT&E," AD-667 000.

* U.S. GPO: 1974—540-847/9052